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 DRAFT
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 14 August 1956
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FERROUS METALS IN THE SOVIET SIXTH FIVE-YEAR PLAN

During the Sixth Five-Year Plan Soviet steel production is to rise from 45,300,000 metric tons in 1955 to 68,300,000 tons in 1960, an increase which approximates the present production of Great Britain. The USSR obviously intends to obtain sufficient steel to support the over-all industrial growth it has projected for 1956-1960. Although the industry's expansion is not a direct preparation for war, it greatly increases the USSR's war potential. These goals are likely to be met in view of the abundance of raw materials reserves, the experience gained during previous five-year plans, and the apparent margins of safety built into the Sixth Five-Year Plan. (SECRET) (Prepared by ORR)

CIWE - PART III - 3rd DRAFT

14 August 1956

Concurred: H/PH

Approved :

FERROUS METALS IN THE SOVIET
SIXTH FIVE-YEAR PLAN

25X1A

The Sixth Five-Year Plan

for the Soviet iron and steel industry provides for the largest expansion program yet realized during a five-year period. Production of crude steel is scheduled to rise from 45,300,000 metric tons in 1955 to 68,300,000 in 1960, an increase which approximates the present production of Great Britain. Of the 23,000,000-ton increase to be obtained, the regime relies on continuing increases in production efficiency to furnish nearly half.

New capacity is to be ~~new~~ brought into production largely at existing plants. However construction is planned for Siberia and Kazakhstan, where, on the basis of the region's coal and iron ore reserves, the USSR plans to develop over the next 10 to 15 years an iron and steel center ranking third in size to the Ukraine and Urals. These ^{new} latter areas ~~new~~ account for 70 to 75 percent of ^(Soviet) ~~(the Russian)~~ iron and steel output.

The USSR obviously intends to obtain sufficient steel to support the over-all industrial growth it has projected for 1956-1960. Although the in-

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dustry's expansion is not a direct preparation for war, it greatly increases the USSR's war potential. The USSR is already the world's second largest steel producer. In 1955, production of crude steel was 17 percent of world output, 43 percent of that of the United States, and 72.5 percent of total production in the Sino-Soviet bloc.

The industry's major production goals are likely to be met in view of the abundance of raw materials reserves, the experience gained during previous five-year plans, and the apparent margins of safety built into the Sixth Five-Year Plan with respect to the production of iron ore, pig iron, and crude and finished steel.

Crude Steel Capacity -

Since the Soviet industry consistently operates at capacity, the production of 23,000,000 metric tons more crude steel in 1960 than in 1955 will require an expansion of similar magnitude in capacity. A consensus of estimates indicates that in the same period about 20,000,000 metric tons will be added to the present 116,000,000 metric tons of crude steel capacity in the United States, on this basis;

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the USSR's planned capacity in 1960 would equal 52 percent of that in the United States as compared with 41 percent in 1955. In absolute figures the USSR's capacity will be comparable with that of the United States in 1931.

Rolled Steel - The planned increase of ~~12,200,000~~ ^{17,400,000} metric tons in the annual rate of total rolled steel production includes a major expansion in flat rolled steel products. Soviet industry has long been deficient ~~in~~ in these products, which are used largely in the production of consumer goods. Production is to be increased by installing a number of continuous sheet and strip mills. Soviet technicians have had little experience in building this type of mill, the first unit of Soviet design and manufacture having been installed only last year. Previously, the only mills of this kind in the USSR were two units purchased in the United States in the 1930's and one that was removed from Germany. The Soviets say they will raise the proportion of flat-rolled products during the next several five-year plans to 40 to 45 percent of total rolled steel production,

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similar to that in the United States. It is doubtful, however, if this will be done unless consumer goods industries are assigned a much higher priority than they now receive.

Raw Materials - To support the expansion in steel output the USSR plans substantially increased production of iron ore and other raw materials. Iron ore production is scheduled to increase from 71,900,000 metric tons in 1955 to 114,300,000 metric tons in 1960. Each of the planned new iron ore capacity requires the provision of beneficiating facilities. The Soviets expect that by 1960 about ~~xxxx~~ two thirds of the commercial grade ore supply will be so processed, as compared with one third in 1955 and about one sixth in 1950. Although born ^{increased} of necessity, ~~in~~ ^{bene-} ^{paly a} beneficiating reflects ~~small~~ decline in the quality of the USSR's ^{ores} ~~ores~~, which are generally of good quality and abundant. Furthermore, ~~xxxxxxxxxxxx~~ beneficiating has positive benefits such ~~as~~ ^{as in-} creasing furnace productivity and lowering the rate of coke consumption. Similar measures are being taken by the US steel industry, although not on as broad a scale.

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7 Technology - Russian iron-
steel-making
and ~~mining~~ technology in
general is on a par with that of
leading Western nations. In
putting new technological de-
velopments into practice, how-
ever, the USSR has concentrated
on certain segments of the in-
dustry and on a limited number
of plants. Emphasis has been
put on increasing the production
of pig iron and crude steel;
considerably less attention has
been given to rolling mill and
finishing line technology.

Major improvements have
thus far been installed in a
limited number of plants. The
iron- and steel-making depart-
ments of the Magnitogorsk and
Kuznetsk Combines, where ad-
vanced technology has been in-
troduced, are as efficient and
productive as the best units in
the United States. Industry-wide
productivity rates, however,
are considerably lower than in
the United States, where crude
steel output per worker in 1956
was 163 tons, as compared with
only 38 tons in the USSR. The
large opportunities for improve-
ment here make possible long
strides toward attaining the
sharp rises in *called for by*
~~high efficiency~~ ~~(goals set forth~~
~~in)~~ the plan.

Low labor productivity and the extensive processing required for raw materials in the USSR suggest that Soviet steel production is no less expensive than in other major steel-producing countries. Relative to the United States, the principal advantage competitive ~~with~~ of the Soviet iron and steel industry appears to lie in its low wage rates. Soviet emphasis on use of advanced techniques to increase production from existing facilities appears to be a considered policy aimed at expanding output with a minimum of outlay. In some instances this will result in higher operating costs than would have been the case had additional facilities been provided.

Outlook for Plan Fulfillment - As in past plans major iron and steel production goals are set for 1960 ~~are~~ likely to be met despite the probable under-fulfillment of certain supporting programs in the Five-Year Plan. In the past this industry has consistently failed to complete its planned modernization and new construction programs. Blast furnace efficiency, scheduled to increase 30 percent in 1951-1955, improved only 22 percent. ~~Even more~~ serious failures

during that period were shortfalls of 26,000,000 tons in the construction of new iron ore capacity and 4,800,000 tons (25 to 35 percent) in the installation of new rolling mill capacity. Such failures have not in the past prevented the industry from attaining planned increases in production. Output goals have been met by scheduling maximum production from new and existing capacity and by continuing (in service) inefficient facilities that otherwise would have been retired.

Current

plans appear to incorporate provisions for replacing obsolete facilities and possibly for creating reserve capacity—a cushion which could be abandoned if production targets are endangered. More additional capacity is provided for in the Plan than would be required to meet the 1990 output goals for pig iron, crude steel, and rolled steel. In the case of crude steel, for example, the combined increase ^{in capacity} ~~the~~ expected from increased efficiency and from new facilities is 26,600,000 tons—3,600,000 tons more than the planned increase in the annual rate of production.

If planned increases in efficiency materialize and if construction schedules are met completely, which appears ^{past} unlikely on the basis of ~~past~~ performance, the industry will be in a position to meet production goals while replacing obsolete units and creating some reserve capacity. However, a shortfall of nearly 15 percent in the planned expansion of crude steel capacity, although preventing the successful achievement of retirement and reserve aims, would not bar the possibility of meeting production goals. (SECRET)

(Prepared by ORR)

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Office Memorandum • UNITED STATES GOVERNMENT

TO : Chief, St/PC

DATE: 27 June 1956

FROM : Acting Chief, St/PR

SUBJECT: Project No. 20.1116, Metals in the Sixth Soviet Five Year Plan

The due date on the above project is changed from 6 July 1956
to 27 July 1956.

Distribution:

Orig. - St/PC

1 - D/M

1 - M/FM

1 - M/NF

1 - CSS

2 - St/PR

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St/PR/RR:jt:2803 (27 June 1956)

Office of the Chief, Economic Research
Office of Research and Reports

Project Action Memorandum

Project No. 20.1116
Date: 14 June 1956

TITLE: Metals in the Sixth Soviet Five Year Plan

REQUESTER: OGI

STATEMENT OF THE PROBLEM AND TERMS OF REFERENCE:


Problem:

Prepare for OGI Weekly publication a summary of Soviet metal position and Sixth Five Year Plan aims. Comparative positions and effect on Soviet capabilities should be emphasized.

Terms of Reference:

Maximum use should be made of graphics for presenting relevant data. Graphics will be prepared from data furnished by concerned branches through CSS to OGI. Article should be prepared with the general reader -- neither a Soviet specialist nor an intelligence officer -- in view.

RESPONSIBILITY:

	<u>Man-hours</u>	<u>Due Dates</u>	<u>Concurrence (Initials)</u>
<u>Action Division:</u> D/M		6 Jul 56	
<u>Branches:</u> H/FM	35		
M/NE	20	1 Jul 56	

Consulting Branches: A/U

Staff: St/PR 25X1A
CSS

Principal Analyst: [REDACTED] x3165

Approved For Release: [REDACTED] A-RDP79T01049A001500280001-4

This project will not delay completion of currently scheduled projects.